

DEVICE AND METHOD FOR CONTROLLING FUEL CELL SYSTEM

ABSTRACT OF THE DISCLOSURE

A control device for controlling the operation of a fuel cell system is disclosed, including a microprocessor, a voltage detection circuit, a current detection circuit, a hydrogen pressure detection circuit, a temperature detection circuit, an air flow rate control circuit that is controlled in a pulse width modulation manner, and a pulse signal generation circuit. The air flow rate control circuit is controlled by the microprocessor for regulating the air flow rate through an air supply conduit in a pulse width modulation manner in accordance with output current of a fuel cell stack. The pulse signal generation circuit is controlled by the microprocessor to generate pulse signals for controlling hydrogen flow through a hydrogen supply conduit. The control device monitors the operation conditions of the fuel cell system and performs a preset control process to control the operation of the fuel cell stack so as to optimize the efficiency and overall performance of the fuel cell system.